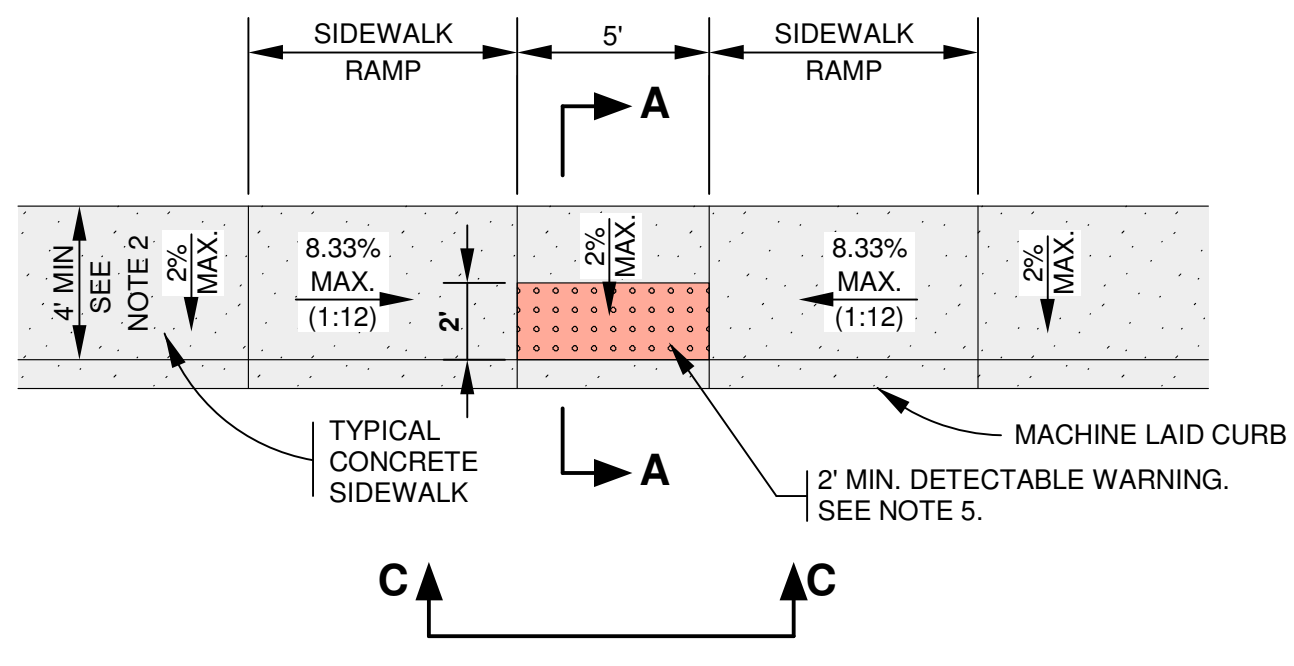
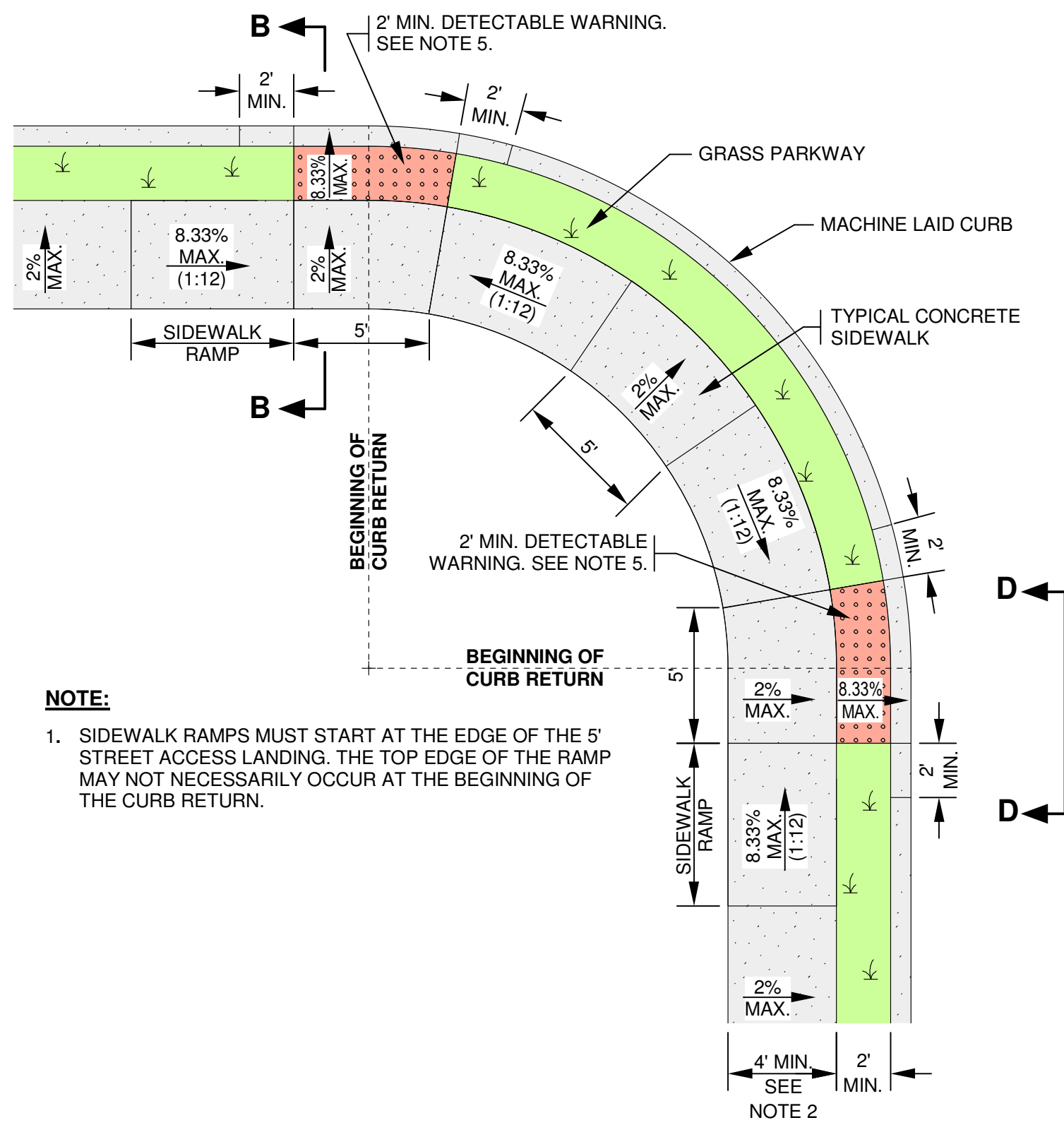


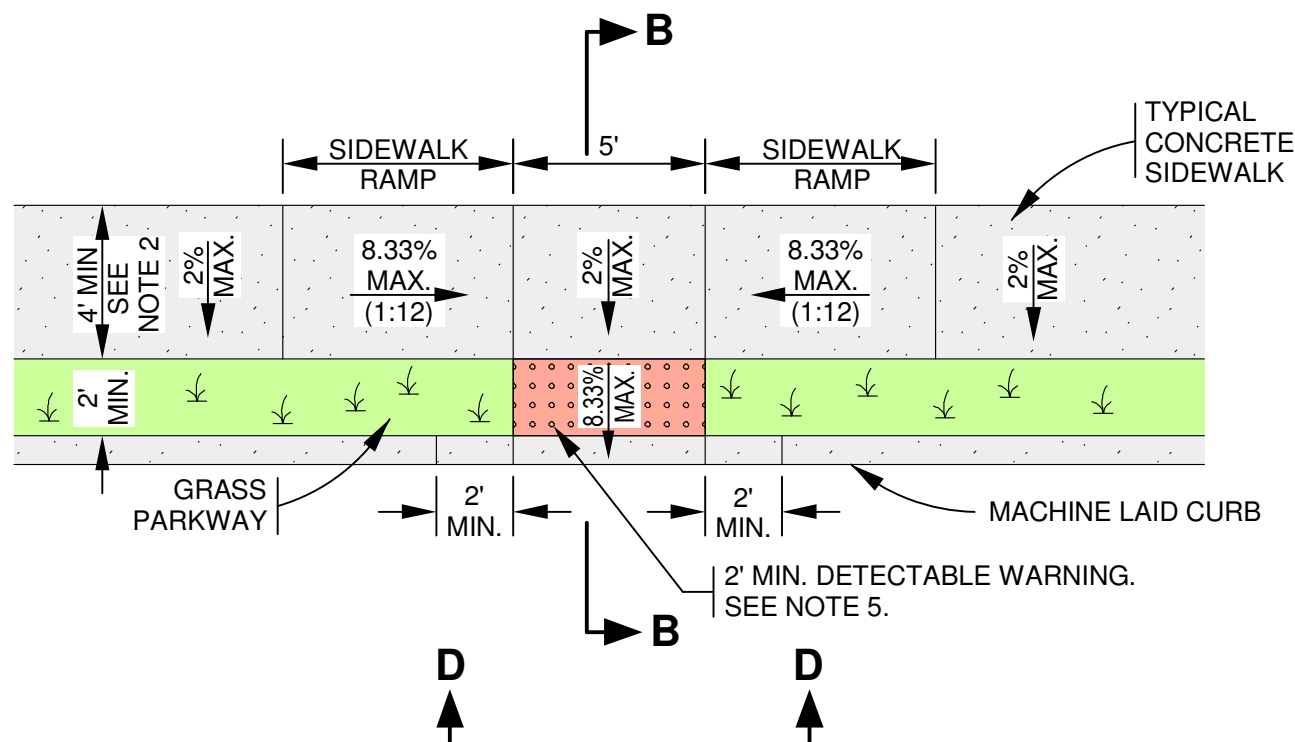
TYPICAL SIDEWALK RAMP - TYPE I
SIDEWALK ABUTS THE CURB



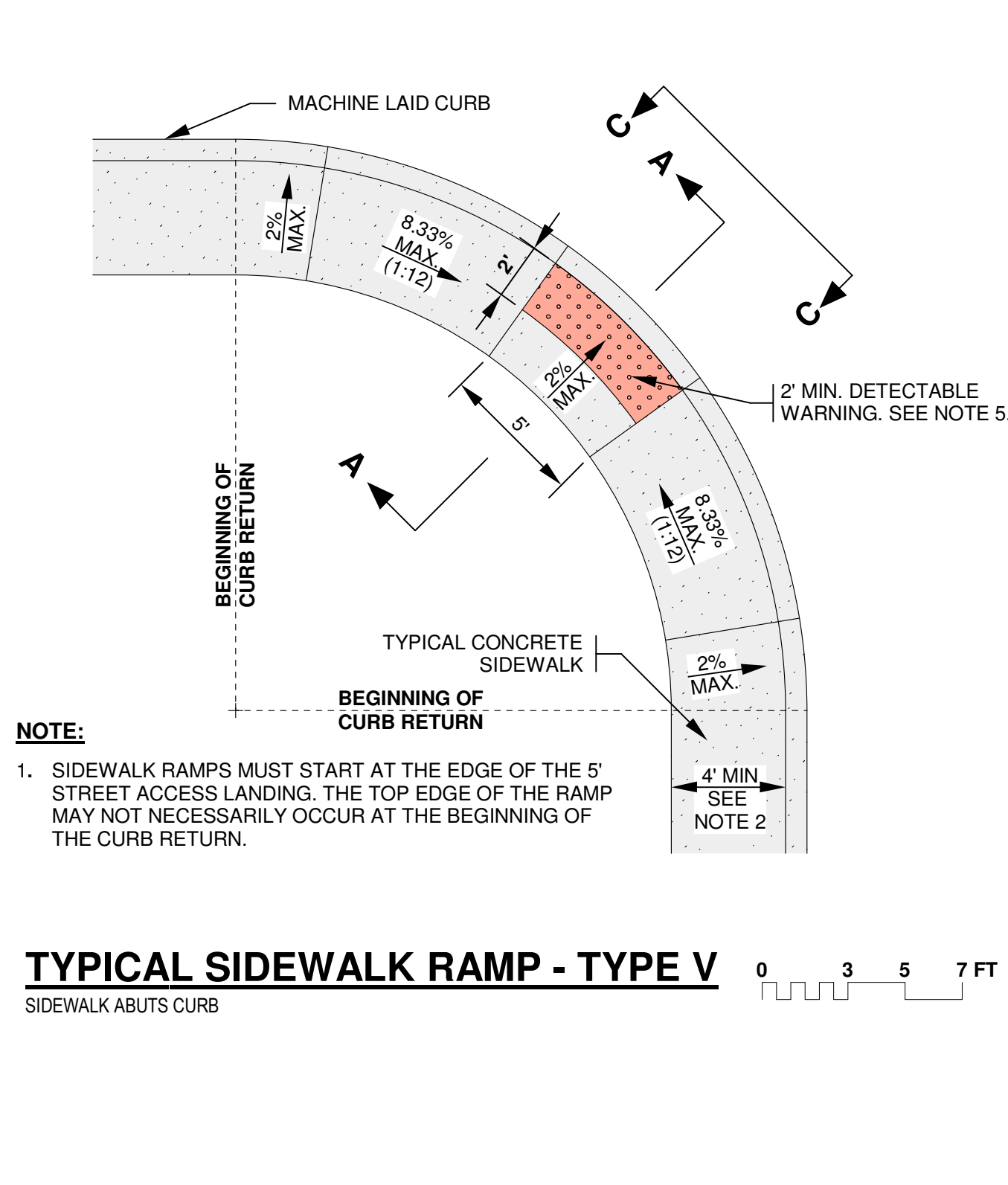
TYPICAL SIDEWALK RAMP - TYPE II
USED AT TEE INTERSECTIONS WHERE SIDEWALK ABUTS CURB



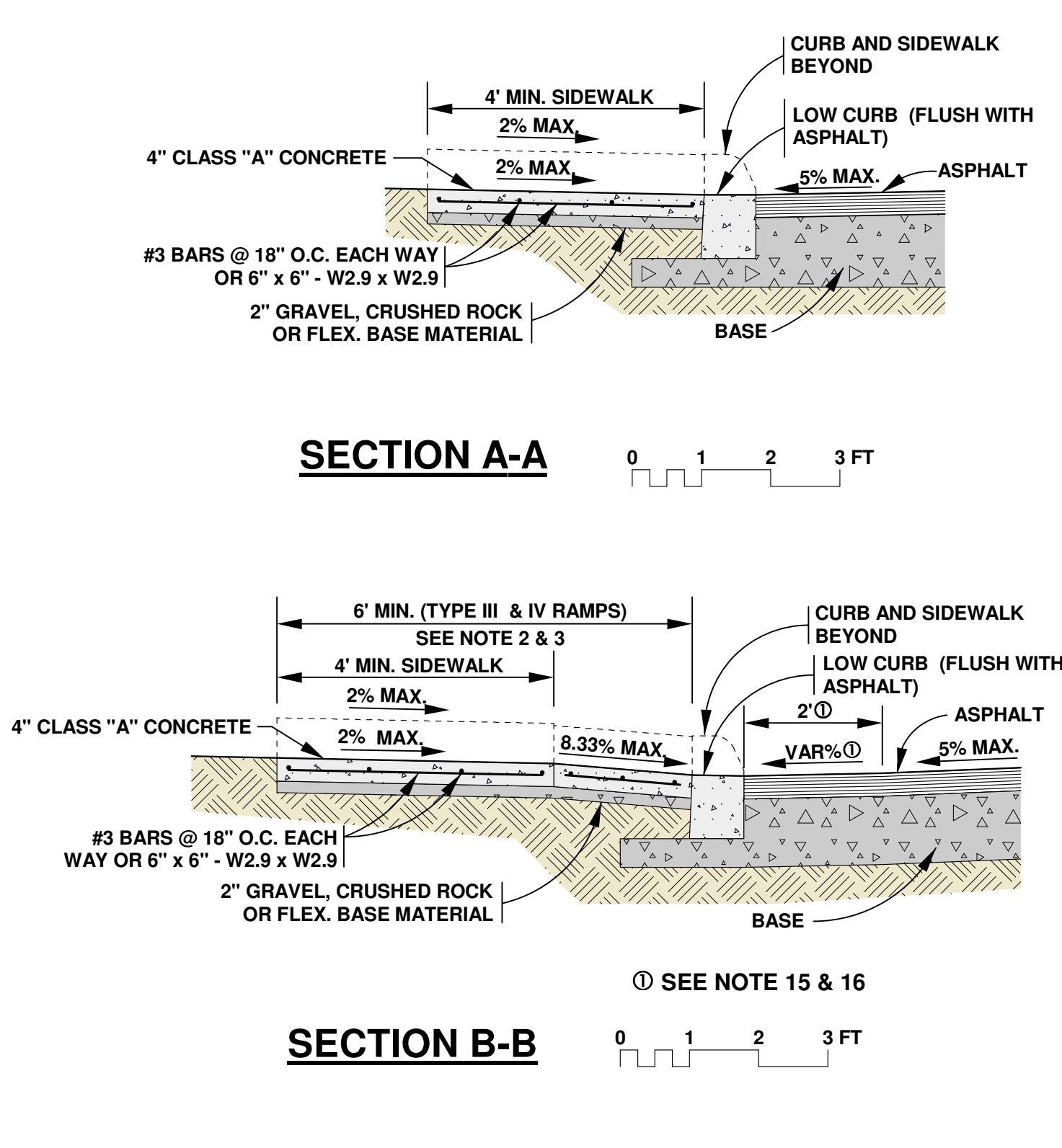
TYPICAL SIDEWALK RAMP - TYPE III
SIDEWALK SEPARATED FROM CURB



TYPICAL SIDEWALK RAMP - TYPE IV
USED AT TEE INTERSECTIONS WHERE SIDEWALK IS SEPARATED FROM CURB

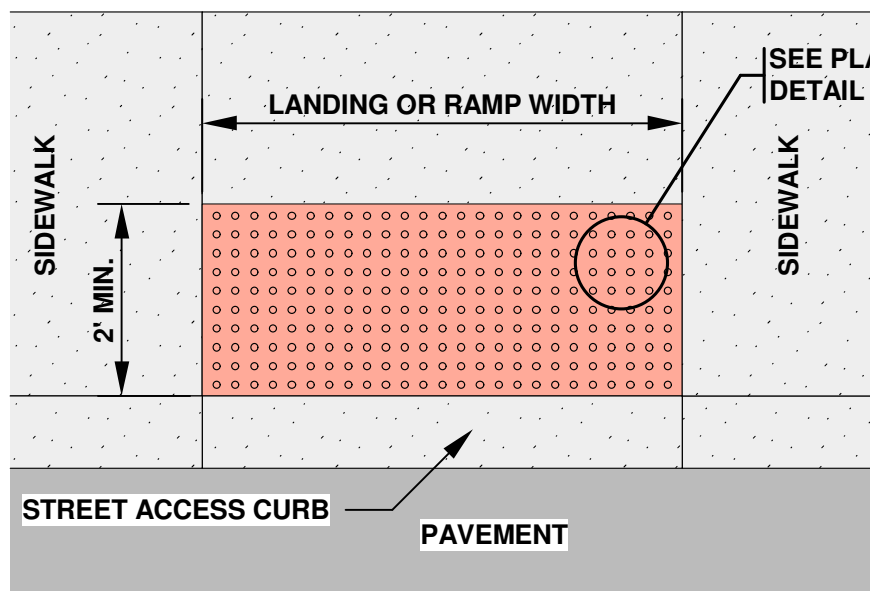


TYPICAL SIDEWALK RAMP - TYPE V
SIDEWALK ABUTS CURB



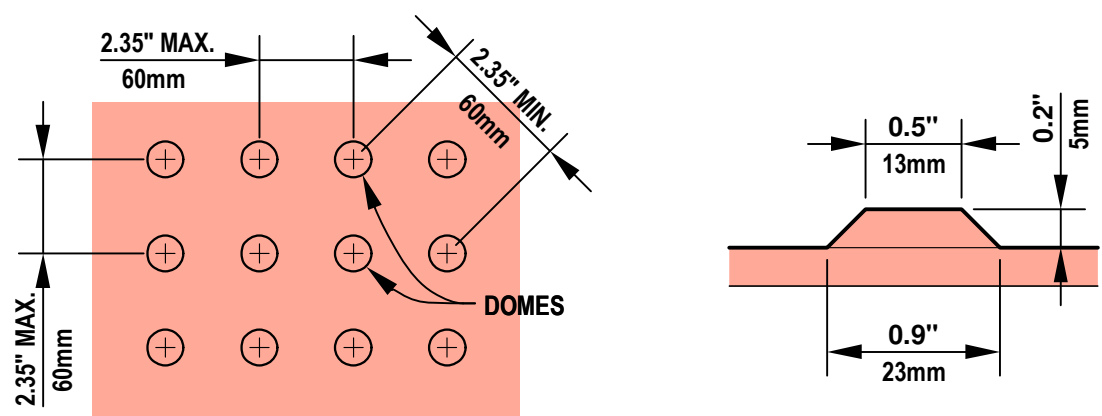
GENERAL NOTES

- WHEN POSSIBLE SIDEWALKS SHOULD BE PLACED NEXT TO THE PROPERTY LINE, ALLOWING A MINIMUM OF 1 FOOT BUFFER. DEVIATION OF THE PATHWAY FROM A STRAIGHT LINE IS ENCOURAGED TO AVOID TREES OR OTHER OBSTRUCTIONS.
- FOR LOCAL TYPE "A" STREETS, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4' AND IF SEPARATED FROM THE CURB, THE SIDEWALK SHALL BE LOCATED A MINIMUM OF 2' FROM THE BACK OF CURB.
- FOR OTHER THAN LOCAL TYPE "A" STREETS, SIDEWALKS SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF 4' AND SEPARATED A MINIMUM OF 2' FROM THE BACK OF CURB OR AS AN OPTION, THE SIDEWALK SHALL HAVE A MINIMUM WIDTH OF 6' WHEN LOCATED AT THE BACK OF CURB.
- SIDEWALK RAMP LENGTHS PRESENTED IN TABLE 1 ARE GUIDELINES ONLY. SIDEWALK RAMP LENGTHS SHALL BE OF SUFFICIENT LENGTH TO MAINTAIN 8.33% (1:12) MAXIMUM SLOPE.
- ALL CURB RAMPS OR LANDINGS ABUTTING THE CROSSWALK SHALL HAVE A DETECTABLE WARNING 24 INCHES DEEP (IN THE DIRECTION OF PEDESTRIAN TRAVEL) AND EXTENDING THE FULL WIDTH OF THE CURB RAMP OR LANDING. THE DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES, ALIGNED IN A GRID PATTERN WITH A DIAMETER OF A NOMINAL 0.9 INCHES (23mm), A HEIGHT OF NOMINAL 0.2 INCHES (5mm), AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES (60mm). THE DETECTABLE WARNING SURFACE SHALL BE A CAST-IN-PLACE TILE CONFORMING TO THE CITY OF SAN ANTONIO STANDARD SPECIFICATIONS OR PAVERS CONFORMING TO TxDOT STANDARD PED-05, PEDESTRIAN FACILITIES.
- DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT-ON-DARK, OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.
- SIDEWALK RAMP TYPE V SHALL BE USED ONLY WHERE THERE IS SIGNIFICANT RESTRICTION WITHIN THE PARKWAY TO CONSTRUCT TYPE I OR TYPE III RAMPS.
- CONSTRUCTION OF ALL WHEELCHAIR RAMPS TO BE INCLUDED UNDER ITEMS "500-CONCRETE CURBING", "501-MACHINE LAID CURB" AND/OR "502-CONCRETE SIDEWALKS". RAMP SURFACE SHALL BE BRUSH FINISHED.
- THESE DETAILS ARE FOR REFERENCE ONLY. ACTUAL LOCATIONS OF WHEELCHAIR RAMPS TO BE SHOWN ON CONSTRUCTION PLANS. CITY CONSTRUCTION INSPECTOR CAN ADJUST LOCATIONS FOR SAFETY OR UTILITY CLEARANCE.
- SIDEWALKS LESS THAN 5 FEET IN WIDTH SHALL BE PROVIDED WITH A PASSING SPACE AT A MAXIMUM SPACING OF 200 FEET.
- WHEELCHAIR RAMP SHALL BE CONSTRUCTED WITH 4" CLASS "A" CONCRETE AND 2" GRAVEL, CRUSHED ROCK OR FLEXIBLE BASE MATERIAL.
- REINFORCING STEEL SHALL BE #3 BARS AT 18" O.C. EACH WAY OR 6" x 6" - W2.9 x W2.9.
- SIDEWALK GRADES SHALL NOT EXCEED THE GRADE ESTABLISHED FOR THE ADJACENT ROADWAY, ANY SIDEWALK CONSTRUCTION THAT DEVIATES FROM THE NATURAL GRADE OF THE ROADWAY TO CREATE A GRADE STEEPER THAN THE EXISTING ROADWAY WILL REQUIRE RAMPS, HANDRAILS, AND RESTING PLATFORMS TO BE CONSTRUCTED IN ACCORDANCE WITH ADA AND TAS STANDARDS.
- SIDEWALK CROSS GRADE SHALL HAVE A MAXIMUM SLOPE OF 2%. LANDINGS SHALL HAVE A MAXIMUM SLOPE OF 2% IN ANY DIRECTION.
- THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES SHALL BE LESS THAN 11%. THE CHANGE OF GRADE SHALL BE DEFINED AS THE ALGEBRAIC DIFFERENCE OF THE ADJACENT SURFACE SLOPES. IN THE CASE OF A STREET ACCESS RAMP DESIGNED AT THE 8.33% MAXIMUM SLOPE, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN 2.67% (I.E. 8.33 - (2.67) = 11). IN ADDITION, THE ADJACENT PAVEMENT CROSS SLOPE SHALL BE LESS THAN OR EQUAL TO 5%.
- IF THE CHANGE OF GRADE BETWEEN ADJACENT SURFACES IS GREATER THAN OR EQUAL TO 11%, A LEVELING STRIP, 2 FEET IN LENGTH, SHALL BE PROVIDED TO TRANSITION THE ADJACENT SURFACES.
- ADA COMPLIANCE IN ALTERATIONS INCLUDE ONLY THAT WORK WITHIN THE LIMITS, BOUNDARIES, OR SCOPE OF A PLANNED PROJECT.



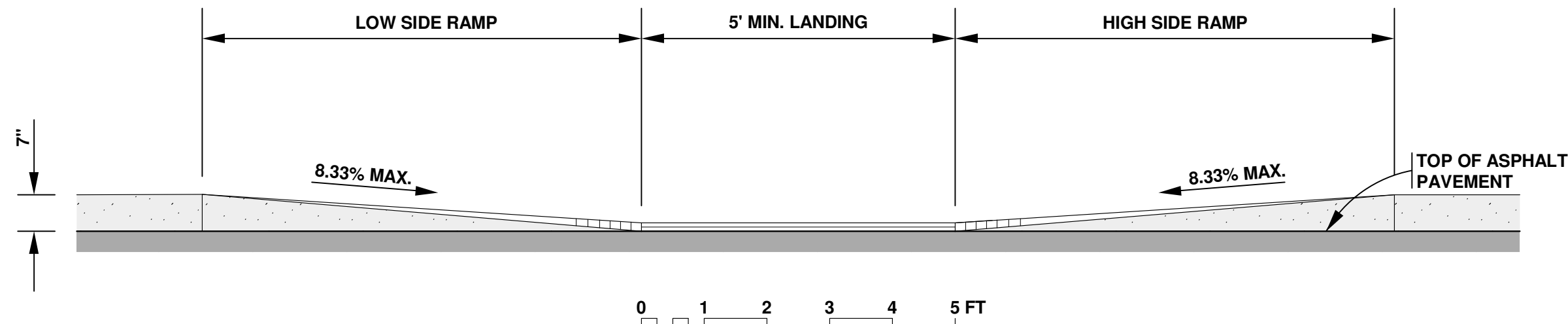
DETECTABLE WARNING AREA

NOTE:
STAMPED CONCRETE TRUNCATED DOMES WILL NOT BE ALLOWED TO BE USED FOR DETECTABLE WARNING ON WHEELCHAIR RAMPS. CONTRACTOR MUST SUBMIT TRUNCATED DOME INFORMATION THAT IS TO BE USED ON WHEELCHAIR RAMPS TO THE PROJECT MANAGER FOR APPROVAL AT LEAST 30 DAYS PRIOR TO INSTALLATION.



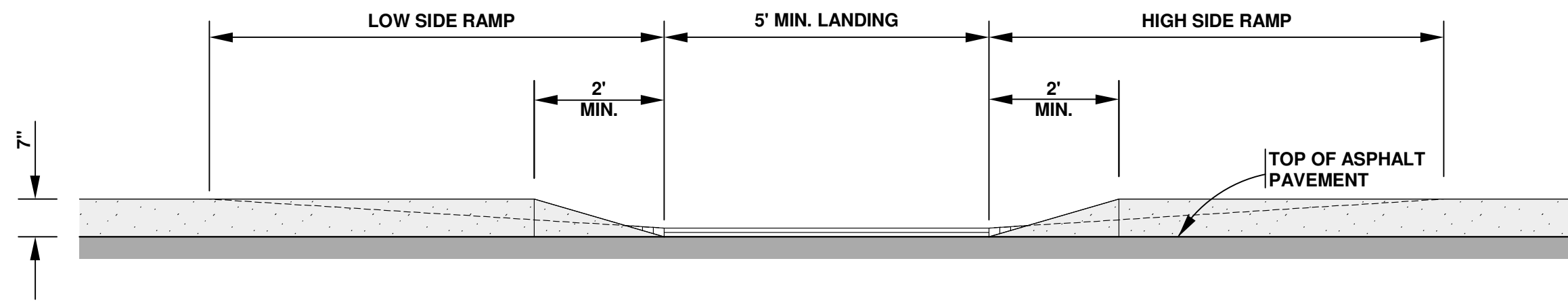
PLAN DETAIL
NO SCALE

DOMES SECTION
NO SCALE



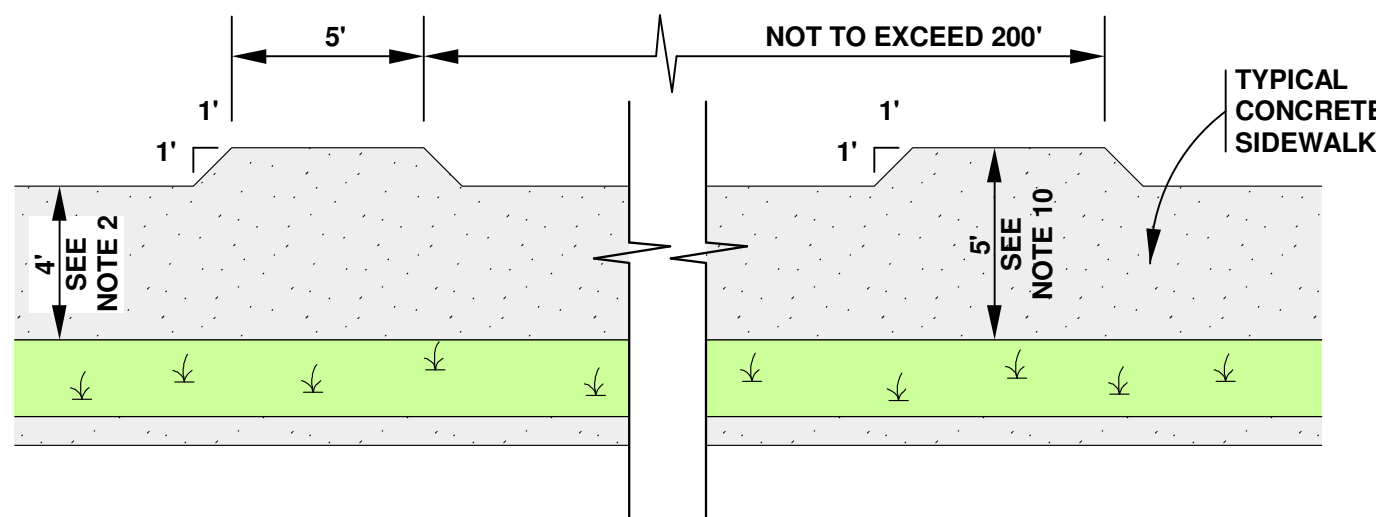
SECTION C-C

CURB PROFILE WHERE SIDEWALK ABUTS CURB



SECTION D-D

CURB PROFILE WHERE SIDEWALK IS SEPARATED FROM CURB



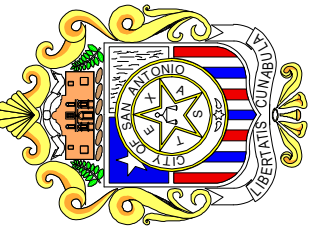
SIDEWALK PASSING SPACE

TABLE 1 (SEE NOTE 4)		
GUTTER SLOPE	SIDEWALK RAMP LENGTH, (1:12)	
	LOW SIDE	HIGH SIDE
1%	5'-6"	7'-2"
2%	5'-0"	8'-4"
3%	4'-6"	10'-0"
4%	4'-2"	12'-6"
5%	3'-10"	16'-8"

DATE	REVISIONS
05/2001	1 Edited Grades & Detail Titles
08/2001	2 Deleted Ramp Loc Table, Rev Groove Depth, & Added 5' Landing
03/2005	3 Added general note 11.
01/2006	4 Deleted Ramp Grooves, added Detectable Warnings
01/2008	5 Changed min. diagonal dome spacing to 2.35" (60mm)

APPR. BY: R. HOSSEINI Assistant City Engineer DATE: JANUARY 2005	APPR. BY: J. FRIEBELE Traffic Engineer DATE: JULY 2001	DESIGN BY: R. HOSSEINI DRAWN BY: V. VASQUEZ CHKD BY: R. HOSSEINI
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CITY OF SAN ANTONIO
DEPARTMENT OF PUBLIC WORKS
ENGINEERING DIVISION



WHEELCHAIR RAMP STANDARDS

SHEET:
OF